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BS-3 Battery

A. INTRODUCTION

1. The BS-3 is a nickel-cadmium battery that will deliver 12 volts for operation of your equipment. As shown in the illustration, the battery is enclosed in a black fiber case. There are two types of BS-3 batteries: The BS/A-3 which has a 4.7 ampere-hour capacity; and the BS/B-3 which has a 7.5 ampere-hour capacity.

2. There are two types of connections mounted at the front of the battery. One is a nine-pin plug, the other is a two-pin terminal post. The nine-pin plug may be used for direct plug-in to a compatible transmitter, or through a compatible nine-pin connector cable to other accessory equipment. The two-pin terminal post contains a positive (+) screw connection and a negative (-) screw connection. Connections may be made to the terminal posts with a two wire connector, or with two separate wires. Instructions for connecting the battery to equipment are contained in the individual equipment instructions.

3. Both types of the BS-3 battery have ten cells, and each cell has a vent screw plug. While being charged, the battery must be kept in an upright position with the vents up. It takes several days after a charge for the pressure built up during charge to leak off; therefore, if the battery must be transported during that period care should be taken to keep it upright. Even then, some slight leakage may occur.

B. MAINTENANCE

There is little maintenance required with the BS-3 battery other than keeping it clean, keeping all of the connections tight, and maintaining the proper liquid level.

1. The battery may be kept clean by periodically wiping the top of the battery and all connections with a clean cloth. Never use oil or grease on any part of the battery. Occasionally, a white powdery crust will appear around the vents and on top of the battery. When this occurs, flush the top of the battery with ordinary water and allow it to air dry. Make certain that the vent plugs are tight to prevent impurities from entering the cells.

2. Before removing the vent plugs for any reason, such as adding distilled water to the cells, always flush the top of the battery to prevent impurities from entering the cells.

3. Periodically check all screw connections for tightness, and tighten when necessary. If trouble is encountered with the battery, it is often due to loose connections between cells.

4. Add water only when necessary and ONLY after the battery has stood idle for three hours after charging. During discharge, or when the battery has been stored for a while, the liquid will be absorbed into the plates of the battery. The proper liquid level can only be determined after fully charging the battery, and after allowing it to stand idle for just three hours.

5. At three hours after full charge, the liquid level should be slightly above the battery plates. It is difficult to determine the level by viewing from the top of the battery. If a transparent straw or a small glass tube can be found, insert the straw or tube into the cell until it touches the top of the plates. Place a finger over the top of the tube and withdraw it to determine if a small amount of liquid is contained at the bottom. Another method of determining liquid level is to remove the battery from the fiber case and view the level through the transparent sides of the battery.

6. Add only distilled, mineral, or clean rain water to the battery cells. After flushing away dirt and impurities from the top of the battery, remove the vent plugs and add the water. Securely tighten the vent plugs immediately after adding water.

C. CHARGING THE BATTERY

Charging times for the BS-3 battery are given in the instructions of your battery charger. Although repeated and lengthy overcharging will evaporate some of the water, it will not seriously harm the battery. Regardless of the amount of overcharge, merely follow the above instructions for adding water. Allowing the battery to stand in a discharged condition will not harm it. It is recommended, however, that the battery be kept at a nearly full charge so that you will be prepared for operation at all times.

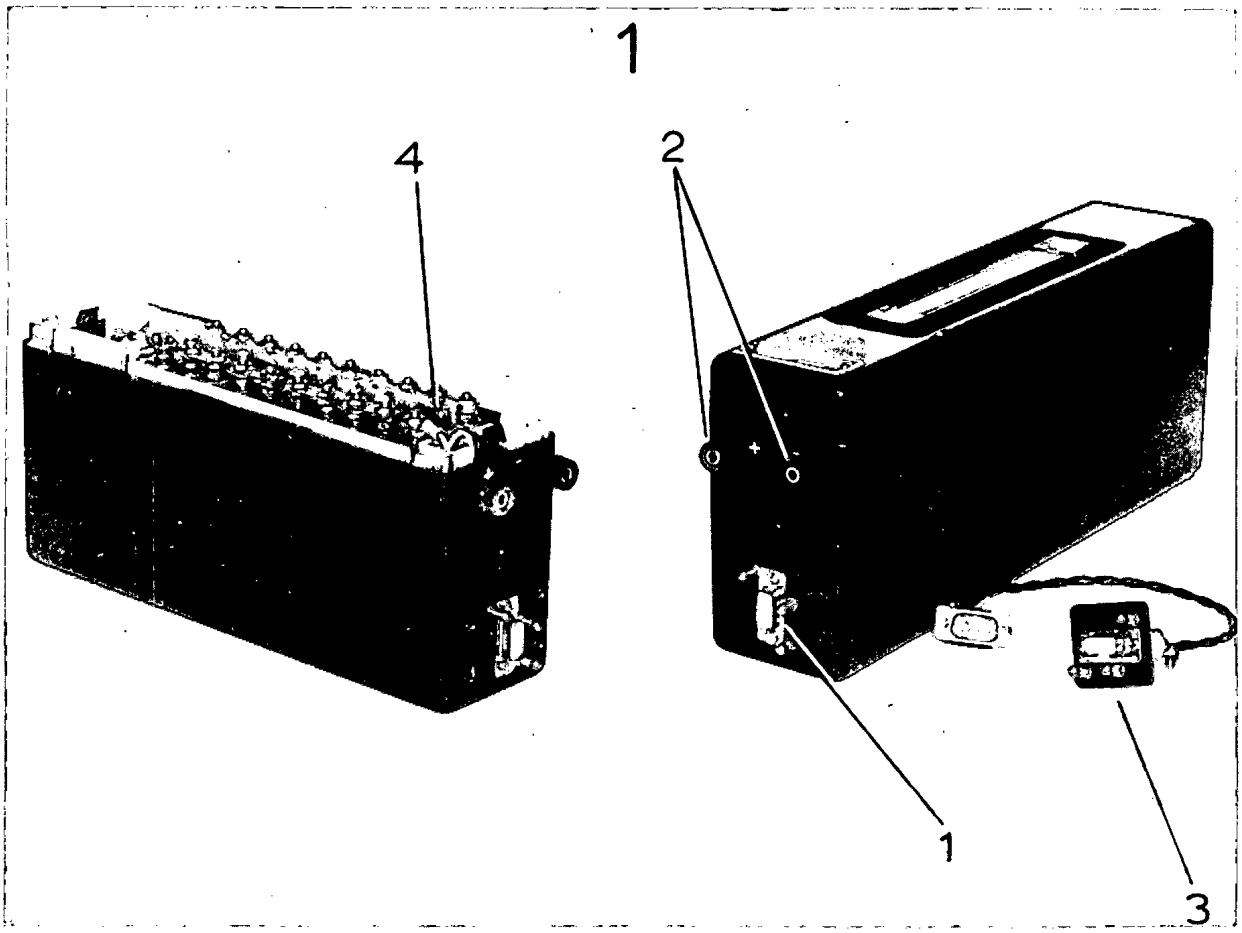

Illustration 1 BS-3 Battery

1. Nine-pin Battery Plug
2. Two-pin Terminal Post
3. Nine-pin Battery Connector
4. Battery Vent Cell Plug